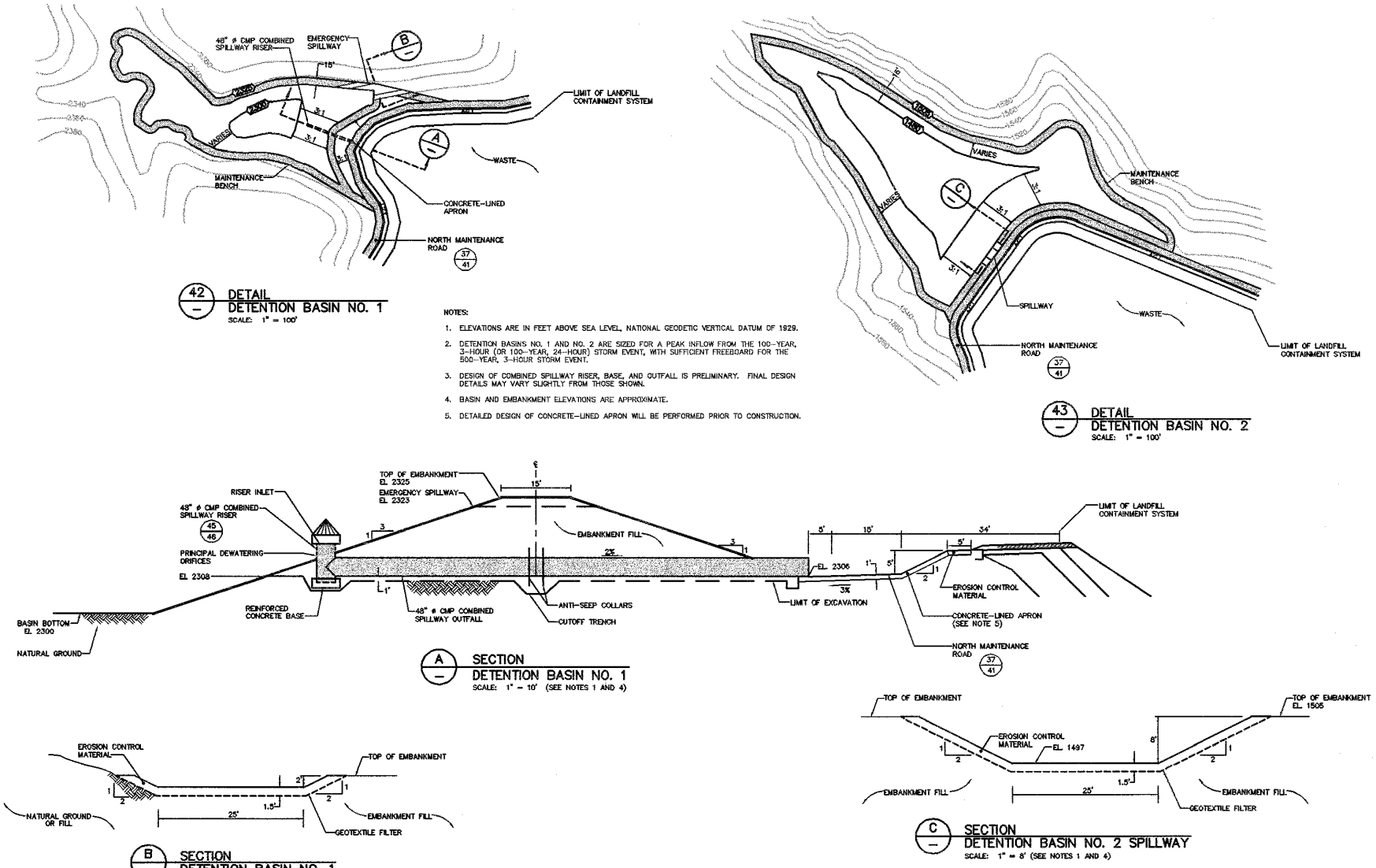
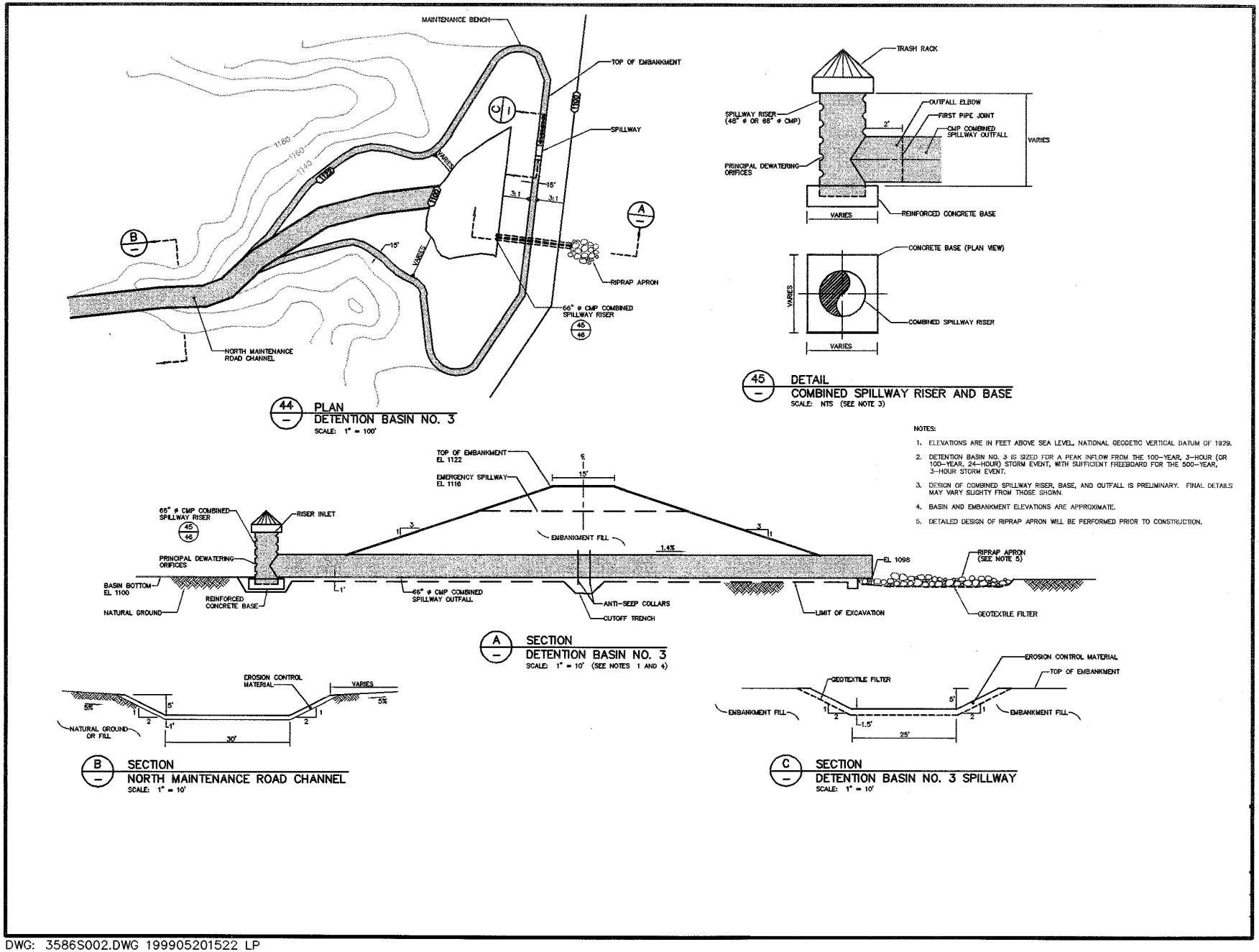


DWG: 3586S003.DWG 199905201444 LP

ATTACHMENT 21: FINAL SURFACE WATER MANAGEMENT SYSTEM DETAILS IV (BASIN NO. 1 AND BASIN NO. 2)



44 — PLAN
DETENTION BASIN NO. 3
SCALE: 1" = 100'

45 — DETAIL
COMBINED SPILLWAY RISER AND BASE
SCALE: NTS (SEE NOTE 3)

NOTES:

1. ELEVATIONS ARE IN FEET ABOVE SEA LEVEL, NATIONAL GEODETIC VERTICAL DATUM OF 1929.
2. DETENTION BASIN NO. 3 IS SIZED FOR A PEAK INFLOW FROM THE 100-YEAR, 3-HOUR (OR 100-YEAR, 24-HOUR) STORM EVENT, WITH SUFFICIENT FREEBOARD FOR THE 500-YEAR, 3-HOUR STORM EVENT.
3. DESIGN OF COMBINED SPILLWAY RISER, BASE, AND OUTFALL IS PRELIMINARY. FINAL DETAILS MAY VARY SLIGHTY FROM THOSE SHOWN.
4. BASIN AND EMBANKMENT ELEVATIONS ARE APPROXIMATE.
5. DETAILED DESIGN OF RIPRAP APRON WILL BE PERFORMED PRIOR TO CONSTRUCTION.

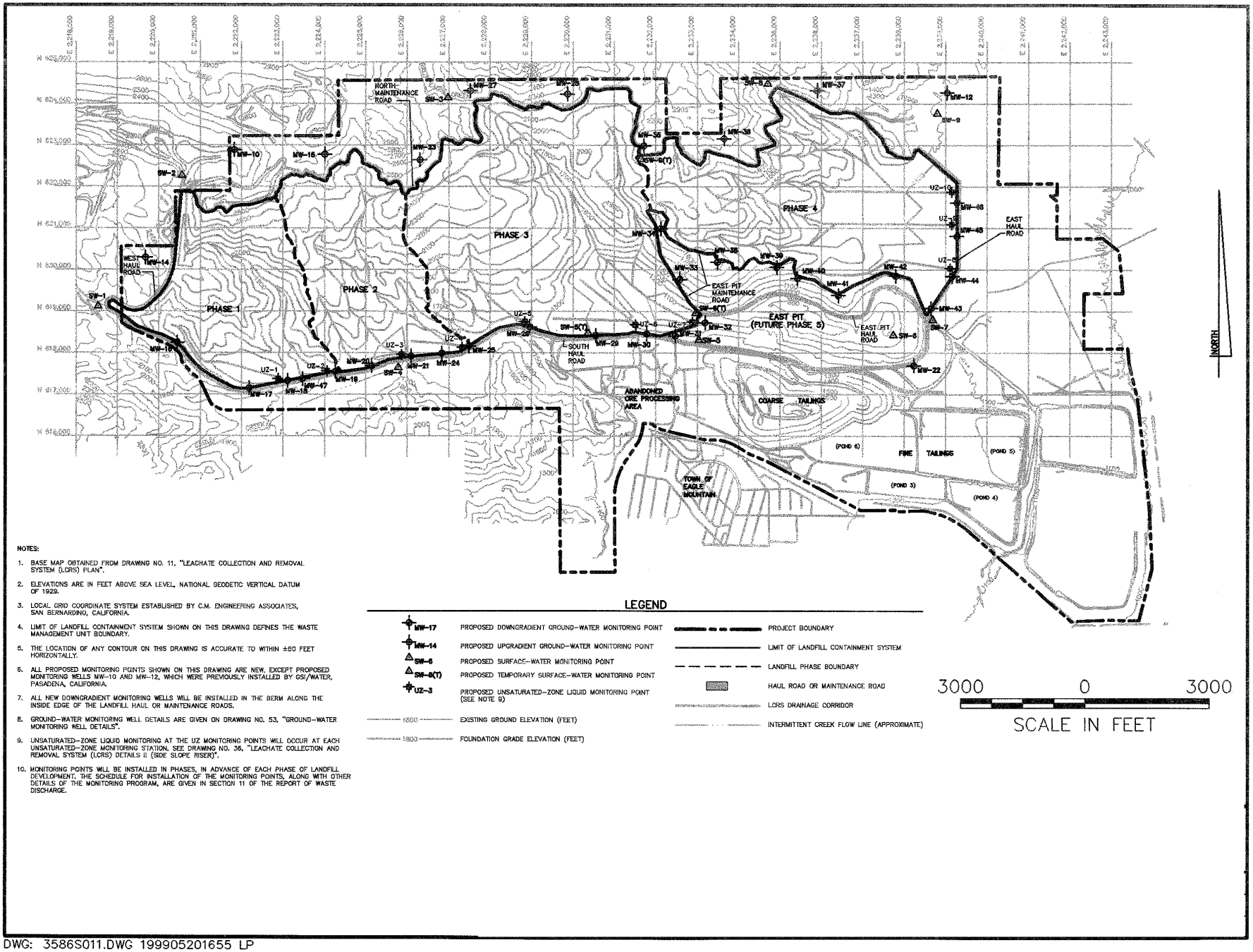
A — SECTION
DETENTION BASIN NO. 3
SCALE: 1" = 10' (SEE NOTES 1 AND 4)

B — SECTION
NORTH MAINTENANCE ROAD CHANNEL
SCALE: 1" = 10'

C — SECTION
DETENTION BASIN NO. 3 SPILLWAY
SCALE: 1" = 10'

DWG: 3586S002.DWG 199905201522 LP

ATTACHMENT 22: FINAL SURFACE WATER MANAGEMENT SYSTEM DETAILS V (BASIN NO. 3)



NOTES:

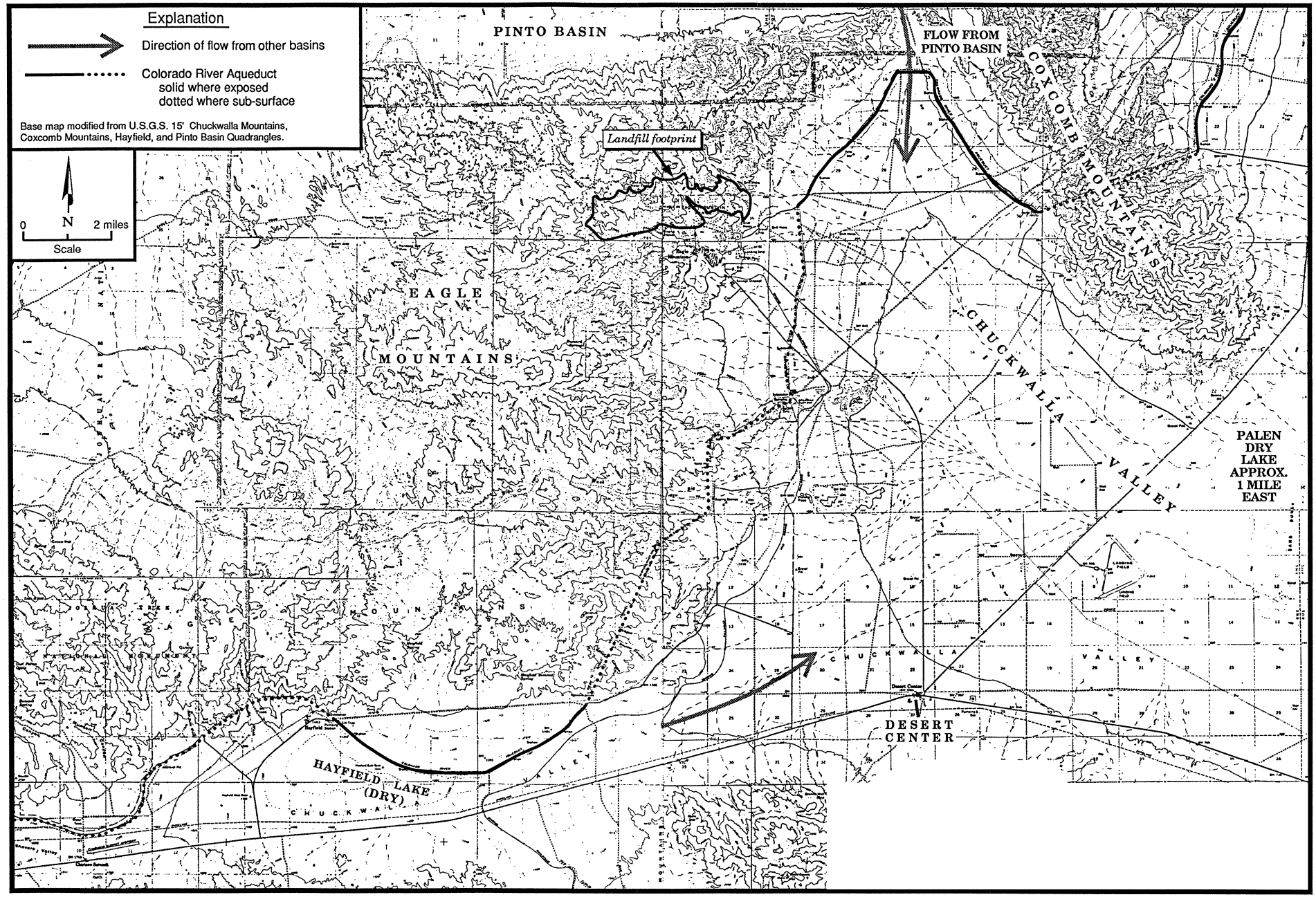
1. BASE MAP OBTAINED FROM DRAWING NO. 11, "LEACHATE COLLECTION AND REMOVAL SYSTEM (LCRS) PLAN".
2. ELEVATIONS ARE IN FEET ABOVE SEA LEVEL, NATIONAL GEODETIC VERTICAL DATUM OF 1929.
3. LOCAL GRID COORDINATE SYSTEM ESTABLISHED BY C.M. ENGINEERING ASSOCIATES, SAN BERNARDINO, CALIFORNIA.
4. LIMIT OF LANDFILL CONTAINMENT SYSTEM SHOWN ON THIS DRAWING DEFINES THE WASTE MANAGEMENT UNIT BOUNDARY.
5. THE LOCATION OF ANY CONTOUR ON THIS DRAWING IS ACCURATE TO WITHIN ±50 FEET HORIZONTALLY.
6. ALL PROPOSED MONITORING POINTS SHOWN ON THIS DRAWING ARE NEW, EXCEPT PROPOSED MONITORING WELLS MW-10 AND MW-12, WHICH WERE PREVIOUSLY INSTALLED BY GSI/WATER, PASADENA, CALIFORNIA.
7. ALL NEW DOWNGRADIENT MONITORING WELLS WILL BE INSTALLED IN THE BERM ALONG THE INSIDE EDGE OF THE LANDFILL HAUL OR MAINTENANCE ROADS.
8. GROUND-WATER MONITORING WELL DETAILS ARE GIVEN ON DRAWING NO. 53, "GROUND-WATER MONITORING WELL DETAILS".
9. UNSATURATED-ZONE LIQUID MONITORING AT THE UZ MONITORING POINTS WILL OCCUR AT EACH UNSATURATED-ZONE MONITORING STATION, SEE DRAWING NO. 36, "LEACHATE COLLECTION AND REMOVAL SYSTEM (LCRS) DETAILS II (SIDE SLOPE RISER)".
10. MONITORING POINTS WILL BE INSTALLED IN PHASES, IN ADVANCE OF EACH PHASE OF LANDFILL DEVELOPMENT. THE SCHEDULE FOR INSTALLATION OF THE MONITORING POINTS, ALONG WITH OTHER DETAILS OF THE MONITORING PROGRAM, ARE GIVEN IN SECTION 11 OF THE REPORT OF WASTE DISCHARGE.

LEGEND

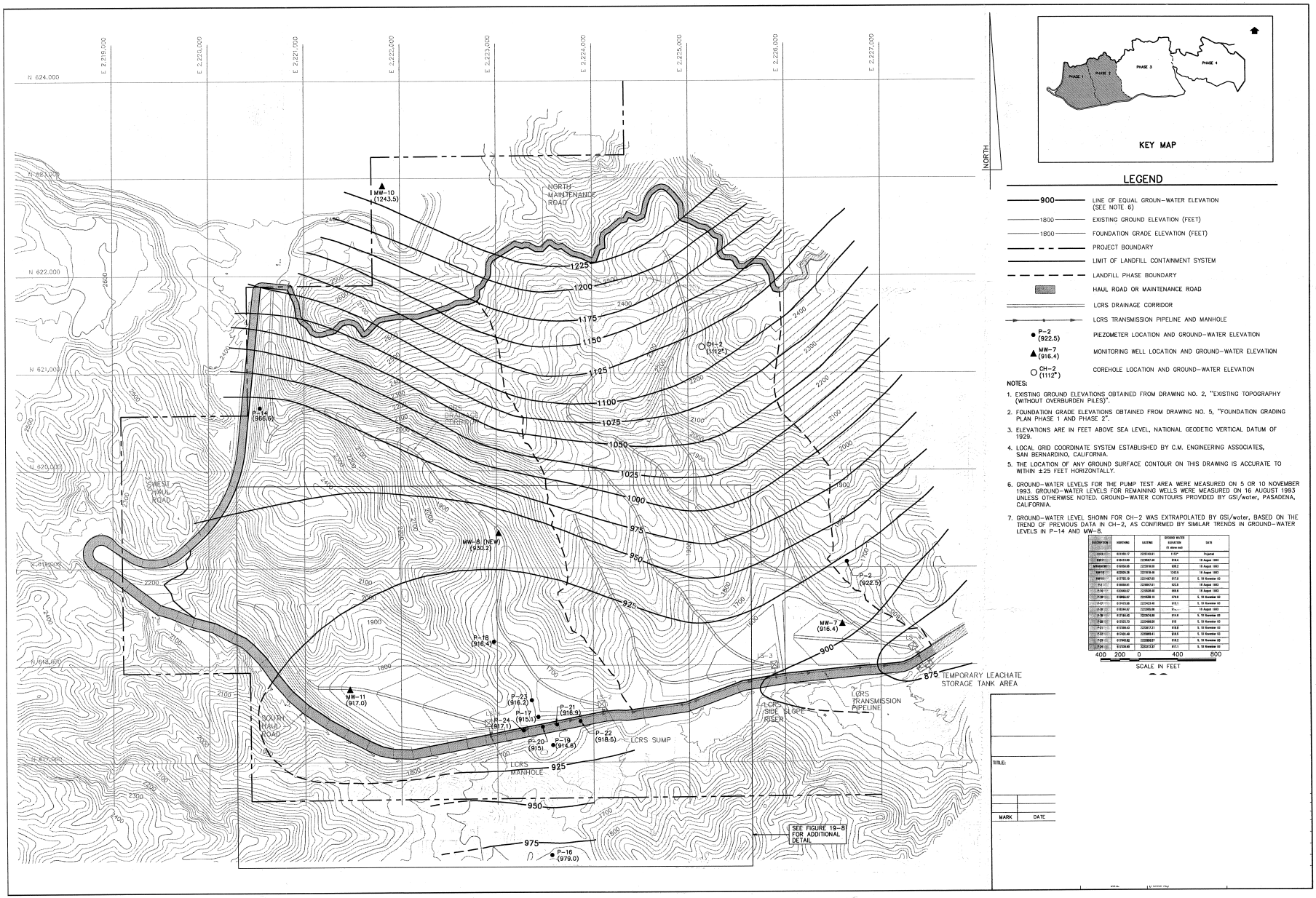
- MW-17 — PROPOSED DOWNGRADIENT GROUND-WATER MONITORING POINT
- MW-14 — PROPOSED UPGRADIENT GROUND-WATER MONITORING POINT
- SW-6 — PROPOSED SURFACE-WATER MONITORING POINT
- SW-8(T) — PROPOSED TEMPORARY SURFACE-WATER MONITORING POINT
- UZ-3 — PROPOSED UNSATURATED-ZONE LIQUID MONITORING POINT (SEE NOTE 9)
- 1804 — EXISTING GROUND ELEVATION (FEET)
- 1803 — FOUNDATION GRADE ELEVATION (FEET)
- PROJECT BOUNDARY
- LIMIT OF LANDFILL CONTAINMENT SYSTEM
- LANDFILL PHASE BOUNDARY
- HAUL ROAD OR MAINTENANCE ROAD
- LCRS DRAINAGE CORRIDOR
- INTERMITTENT CREEK FLOW LINE (APPROXIMATE)

DWG: 3586S011.DWG 199905201655 LP

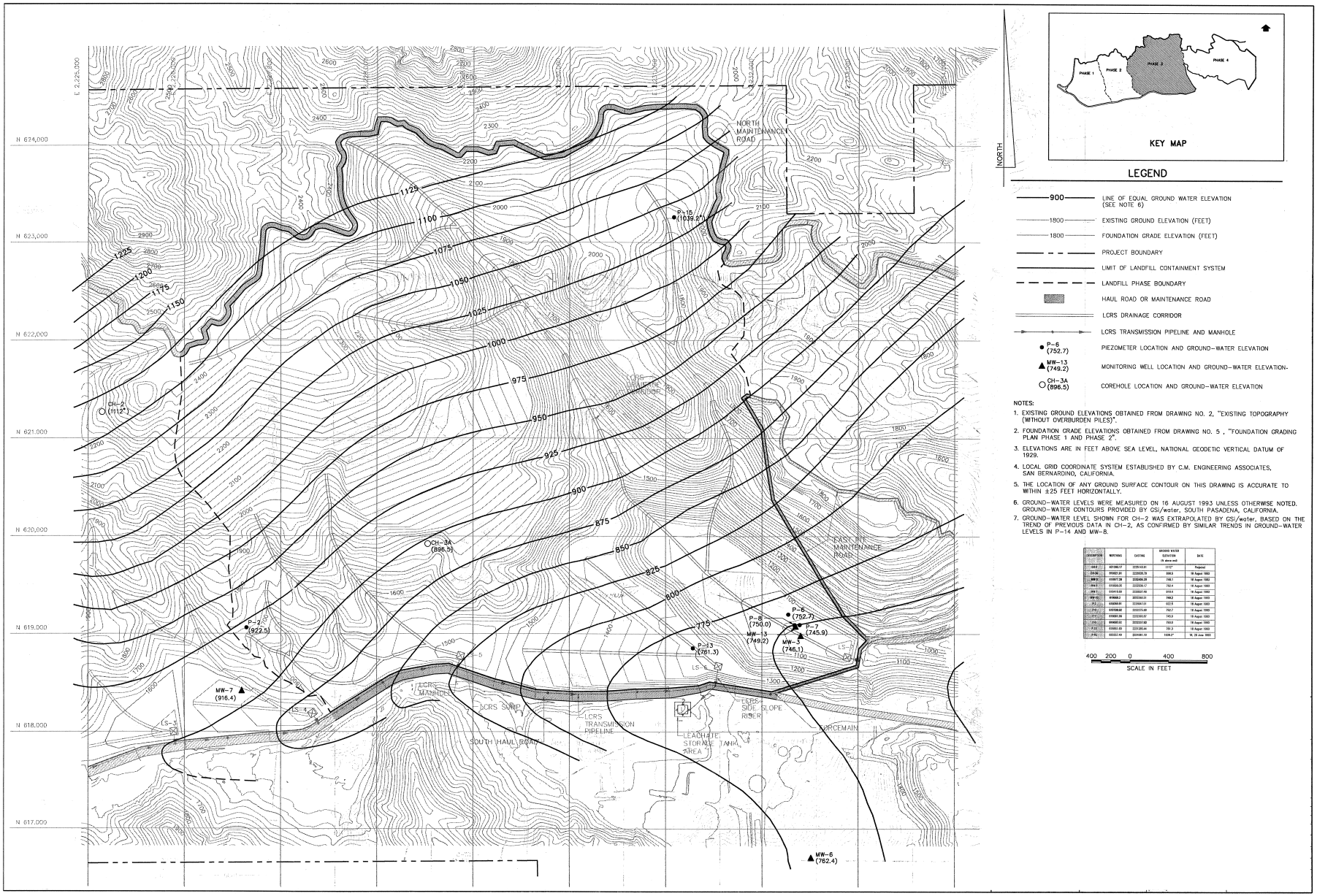
ATTACHMENT 23: WATER QUALITY MONITORING PLAN



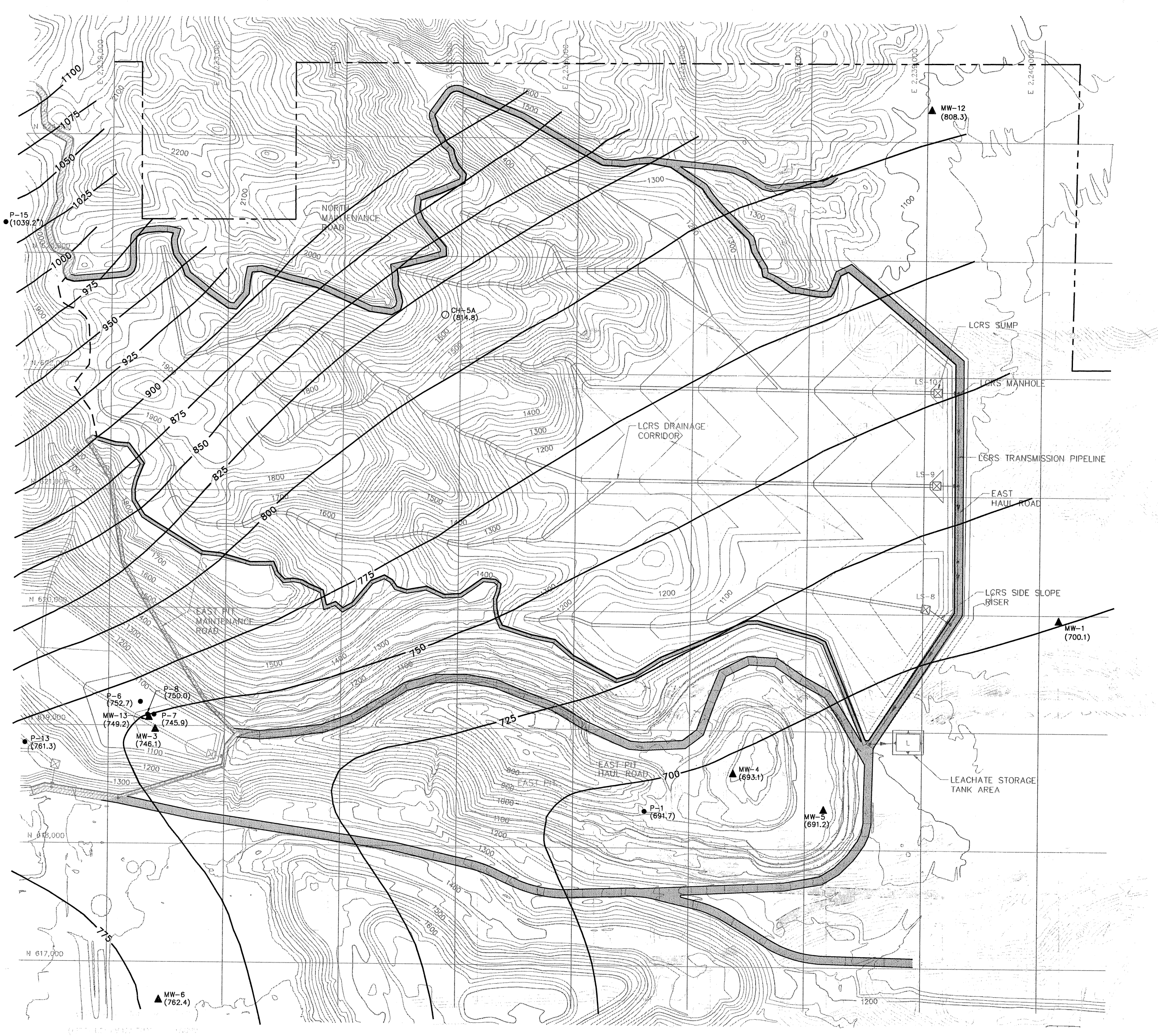
ATTACHMENT 24: INFLOW INTO CHUCKAWALLA VALLEY FROM OTHER BASINS

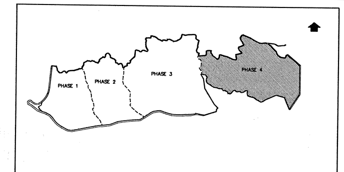


ATTACHMENT 25A: GROUND WATER LEVEL ELEVATIONS PLAN PHASE 1 AND PHASE 2



ATTACHMENT 25B: GROUND WATER LEVEL ELEVATIONS PLAN PHASE 3





KEY MAP

NORTH

LEGEND

- 900 — LINE OF EQUAL GROUND-WATER ELEVATION (SEE NOTE 6)
- 1800 — EXISTING GROUND ELEVATION (FEET)
- 1800 — FOUNDATION GRADE ELEVATION (FEET)
- PROJECT BOUNDARY
- LIMIT OF LANDFILL CONTAINMENT SYSTEM
- LANDFILL PHASE BOUNDARY
- HAUL ROAD OR MAINTENANCE ROAD
- LCRS DRAINAGE CORRIDOR
- LCRS TRANSMISSION PIPELINE AND MANHOLE
- P-1 (691.7) — PIEZOMETER LOCATION AND GROUND-WATER ELEVATION
- MW-1 (700.1) — MONITORING WELL LOCATION AND GROUND-WATER ELEVATION
- CH-5A (814.8) — COREHOLE LOCATION AND GROUND-WATER ELEVATION

NOTES:

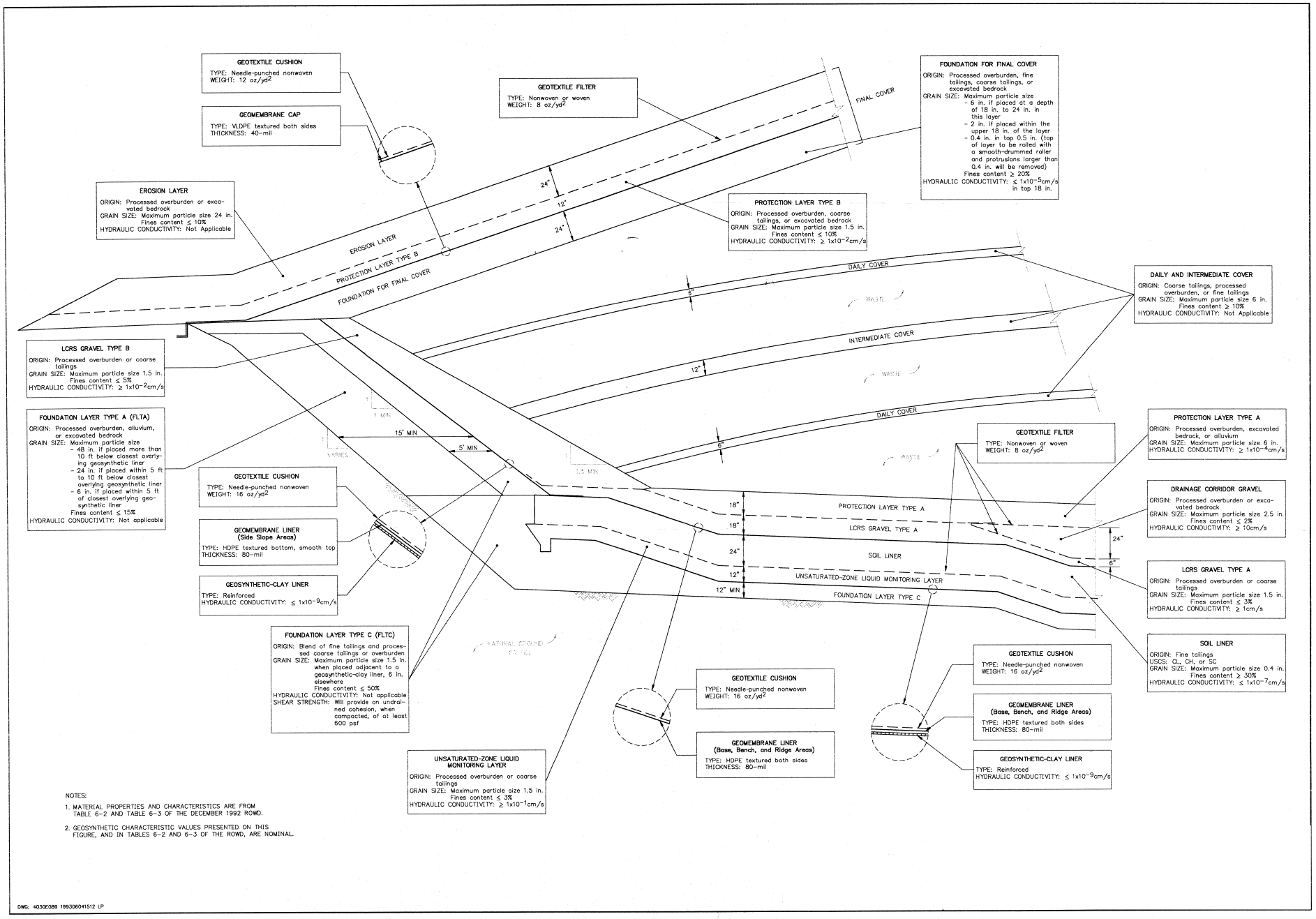
1. EXISTING GROUND ELEVATIONS OBTAINED FROM DRAWING NO. 2, "EXISTING TOPOGRAPHY (WITHOUT OVERBURDEN PILES)".
2. FOUNDATION GRADE ELEVATIONS OBTAINED FROM DRAWING NO. 5 , "FOUNDATION GRADING PLAN PHASE 1 AND PHASE 2".
3. ELEVATIONS ARE IN FEET ABOVE SEA LEVEL, NATIONAL GEODETIC VERTICAL DATUM OF 1929.
4. LOCAL GRID COORDINATE SYSTEM ESTABLISHED BY C.M. ENGINEERING ASSOCIATES, SAN BERNARDINO, CALIFORNIA.
5. THE LOCATION OF ANY GROUND SURFACE CONTOUR ON THIS DRAWING IS ACCURATE TO WITHIN ±25 FEET HORIZONTALLY.
6. GROUND-WATER LEVELS WERE MEASURED ON 16 AUGUST 1993 UNLESS OTHERWISE NOTED. GROUND-WATER CONTOURS PROVIDED BY GSi/water, SOUTH PASADENA, CALIFORNIA.
7. GROUND-WATER LEVEL SHOWN FOR P-15 WAS EXTRAPOLATED BY GSi/water BASED ON THE TREND OF PREVIOUS DATA IN P-15, AS CONFIRMED BY SIMILAR TRENDS IN GROUND-WATER LEVELS IN CH-5A.

DESCRIPTION	NORTHING	EASTING	GROUND WATER ELEVATION (ft above msl)	DATE
CH-5A	622500.71	2234868.36	814.8	16 August 1993
MW-1	619959.37	2240169.01	700.1	16 August 1993
MW-3	618977.39	2232404.20	746.1	16 August 1993
MW-4	618642.25	2237376.45	693.1	16 August 1993
MW-5	618340.71	2238160.12	691.2	16 August 1993
MW-6	616696.05	2232508.17	762.4	16 August 1993
MW-12	624274.96	2239034.93	808.3	16 August 1993
MW-13	619069.2	2232350.31	749.2	16 August 1993
P-1	618311.22	2236615.26	691.7	16 August 1993
P-6	619199.92	2232275.69	752.7	16 August 1993
P-7	619091.96	2232393.67	745.9	16 August 1993
P-8	619090.92	2232337.93	750.0	16 August 1993
P-13	618851.60	2231285.44	761.3	16 August 1993
P-15	623257.49	2231081.19	1039.2*	18, 20 June 1993

400 200 0 400 800

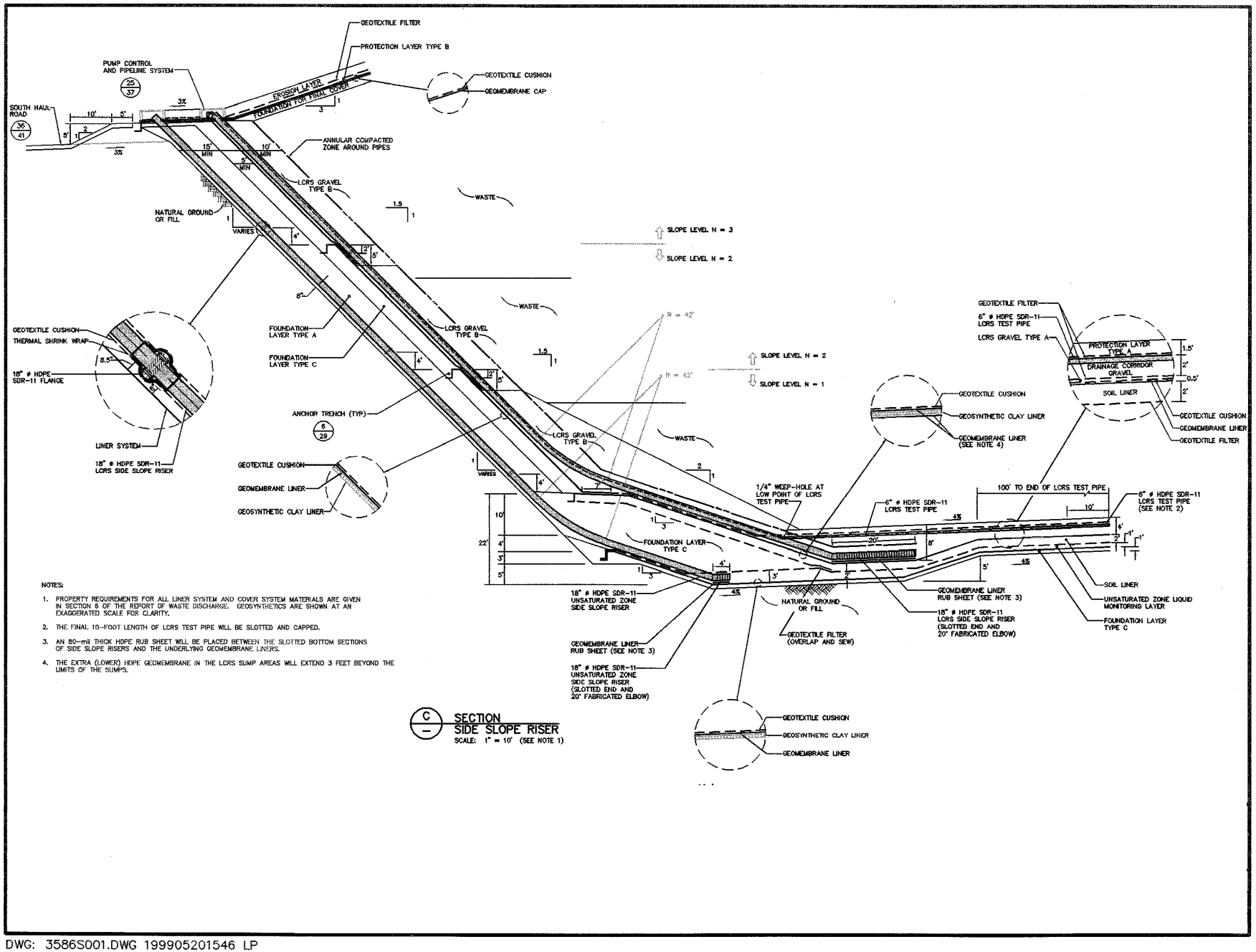
SCALE IN FEET

ATTACHMENT 25C: GROUND WATER LEVEL ELEVATIONS PLAN
PHASE 4



ATTACHMENT 26A: LANDFILL EARTH MATERIAL AND GEOSYNTHETIC PRODUCT CHARACTERISTICS

ATTACHMENT 26B: LANDFILL EARTH MATERIAL AND GEOSYNTHETIC PRODUCT CHARACTERISTICS



DWG: 3586S001.DWG 199905201546 LP

ATTACHMENT 27: LEACHATE COLLECTION AND REMOVAL SYSTEM (LRCS) DETAILS II (SIDE SLOPE RISER)